

Fig. 1 – (a) Mean annual cycle of latent heat flux along 95°W from 8°S to 12°N from TAO/EPIC buoy measurements. (b-d) Mean annual cycle of difference between NWP and buoy latent heat flux field buoy along 95°W from 8°S to 12°N: (b) for NCEP/NCAR, (c) for NCEP/DOE, and (d) for ECMWF 40-year reanalysis. A positive latent heat flux value indicates heat loss by ocean.

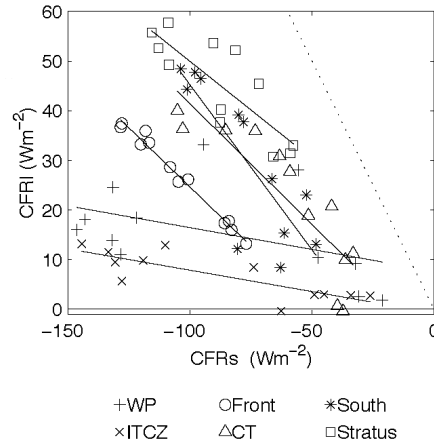


Figure 2 – Scatterplots of longwave cloud forcing mean annual cycle vs solar cloud forcing mean annual cycle from buoy data in the six latitudinal bands defined as northeast Pacific warm pool (11° - 13°N , 95°W), ITCZ (6.5° - 11°N , 95°W), frontal (1° - 6.5°N , 95°W), cold tongue (3.5°S - 1°N , 95°W), southern (9° - 3.5°S , 95°W), and stratus (20°S , 85°W).

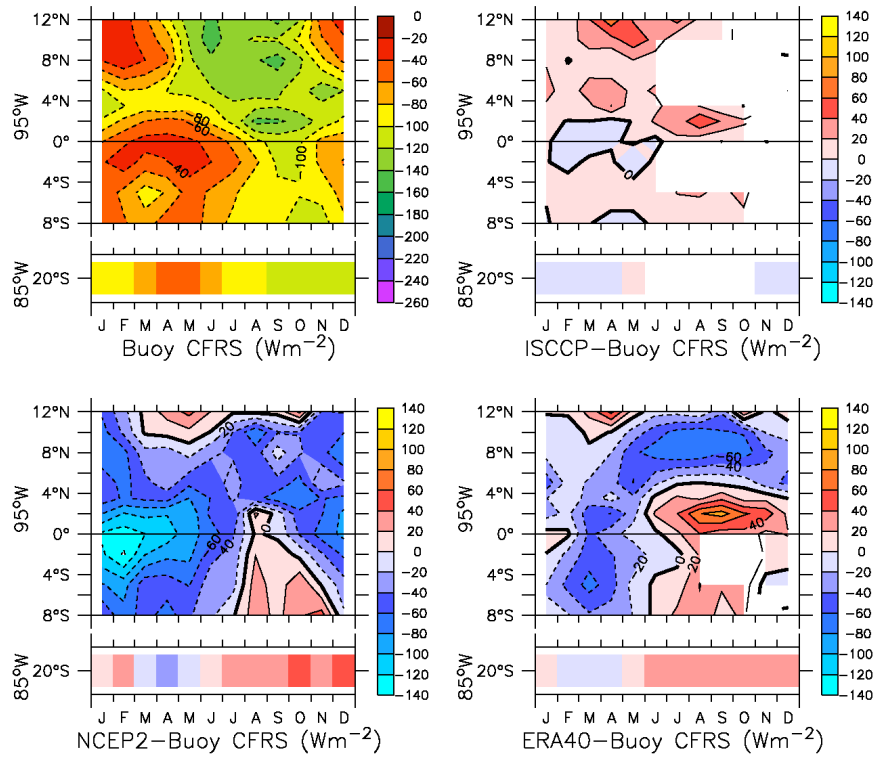


Figure 3 – (a) Mean annual cycle of surface solar cloud forcing from EPIC buoys along 95°W from 8°S to 12°N and at 20°S, 85°W; and mean annual cycle of differences between surface solar cloud forcing and buoy field along 95°W from 8°S to 12°N and at 20°S, 85°W for (b) ISCCP, (c) NCEP/DOE reanalysis, and (d) ERA40.

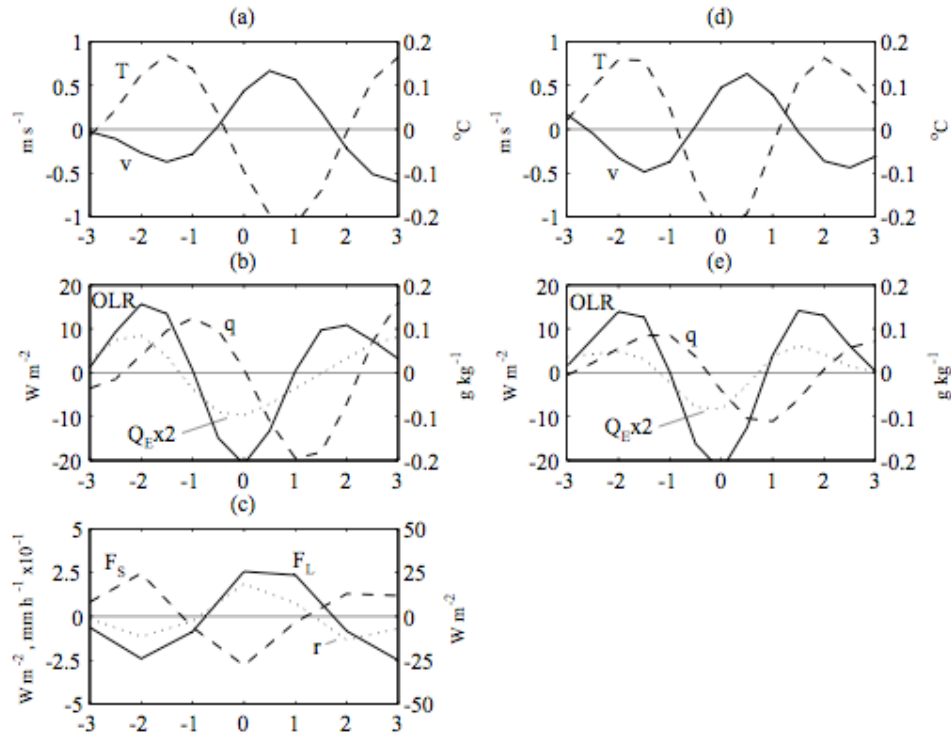


Fig. 4 - Regressions of buoy (a) meridional wind (solid: v) and air temperature (dashed: T); (b) specific humidity (dashed: q) and latent heat flux (dotted: Q_E); and (c) longwave cloud forcing (left axis: solid: F_L), shortwave cloud forcing (right axis: dashed: F_S) and rain rate (dotted: r) all at 10°N 95°W . Also shown in (b) is TD-filtered OLR at 10°N 95°W (solid: OLR). (d)-(e) same as (a)-(b) but for buoy at 8°N 165°E using an OLR base point at 7.5°N 165°E . Q_E has been multiplied by 2 to better match range of OLR values.

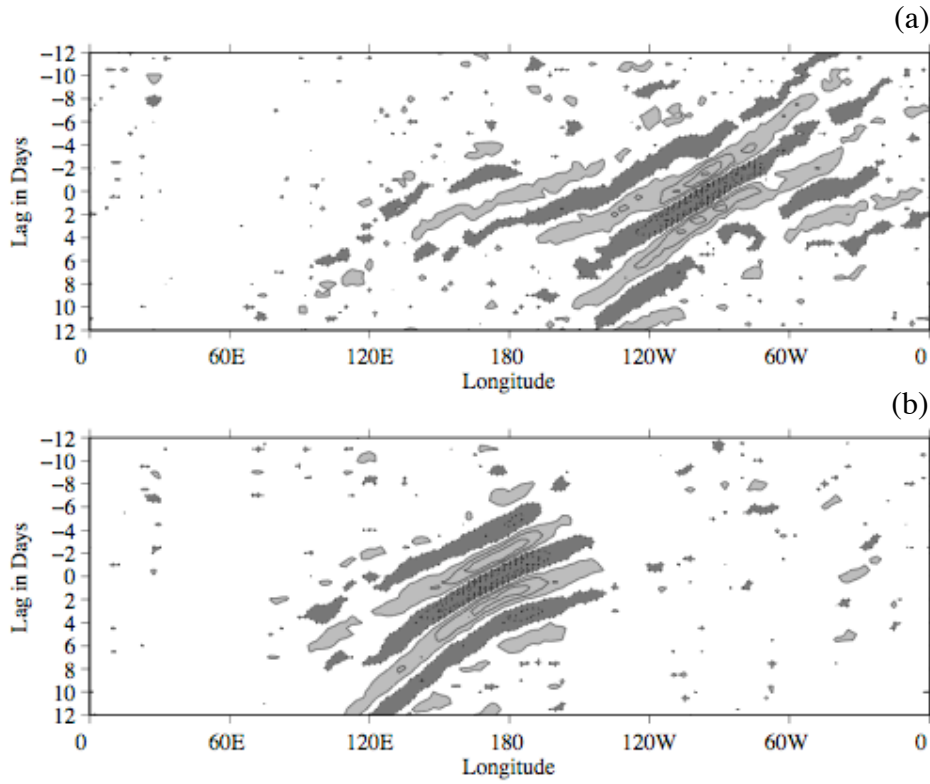


Fig. 5 - Time-longitude diagram OLR regressions for the base point at (a) 10°N 95°W and (b) 7.5°N 172.5°E. Dark gray contours are negative anomalies, lighter gray contours are positive anomalies. Contour lines are draw at intervals of 2 W m⁻² starting at ± 1 W m⁻².